PETTIPIECE et al.

Application No.: 09/536,932

Page 2

14

15

16

17

1

2

1

2

2

1

2

1

2 3 at least two turning mirrors; and

PATENT

one polarizing/bearf splitter wherein said polarizing beam splitter preferentially reflects a first polarization and preferentially transmits a second polarization; a detector array, wherein said sample and said interferogram of said sample are imaged on said detector array, wherein said detector array outputs a plurality of signals corresponding to an intensity at each pixel of said array; and a processor coupled to said detector array and coupled to a monitor, said processor displaying an image of said sample on said monitor. The spectral imaging system of claim 12, wherein said polarizing beam splitter is a 13. polarizing cube. (New) The spectral imaging system of claim 12, wherein said first polarization is 23. perpendicular to a plane of incidence (s-polarization). (New) The spectral imaging system of claim 12 wherein said second polarization is 24. parallel to a plane of incidence (p-polarization). (New) The spectral imaging system of claim 12, wherein said at least two turning 25.

mirrors are configured to turn independently. (New) The spectral imaging system of claim 12, wherein said at least two turning 26.

mirrors are coated with a dielectric to minimize effects upon said first polarization and said second polarization.

## REMARKS

Upon entry of this amendment, which cancels claims 5-11, amends claim 12 and adds claims 23-26, claims 12-13 and 23-26 remain pending.

In response to a restriction requirement dated January 30, 2001, claims 12 and 13 (i.e., Group III) have been elected for continued prosecution in connection with the above-identified application and claims 5-11 have been cancelled. Applicants reserve the right to continue prosecution of claims 5-11 in a divisional application.

Claims 12 and 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over McNamara (U.S. Patent No. 5,539,517) in view of Cabib (U.S. Patent No. 5,539,517).